



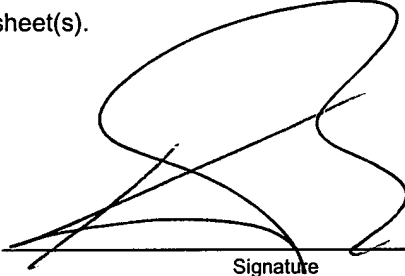
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PTO/SB/33 (07-05)

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| PRE-APPEAL BRIEF REQUEST FOR REVIEW   |  | Docket Number (Optional)<br>960296.97133         |                                     |
|---|--|--|-------------------------------------|
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|   |  | First Named Inventor<br><b>David C. Schwartz</b> |                                     |
|   |  | Art Unit<br><b>1641</b>                          | Examiner<br><b>Deborah A. Davis</b> |
| <p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s).<br/>Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest.<br/>See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.<br/>(Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. <b>31,233</b><br/>Registration number _____</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34.<br/>Registration number if acting under 37 CFR 1.34 _____</p> <p><br/>Signature<br/><b>Keith M. Baxter</b><br/>Typed or printed name<br/><b>(414) 277-5719</b><br/>Telephone number<br/><b>December , 2005</b><br/>Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input type="checkbox"/> *Total of <u>1</u> forms are submitted. <i>+ notice of appeal + ext. of time</i></p> |  |  |                                     |

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Keith M. Baxter, Reg. No. 31,233

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 09/638,102  
Filed: August 11, 2000  
Applicant(s): David C. Schwartz  
Title: Chemical Screening System Using Strip Arrays  
Art Unit: 1641  
Examiner: Davis, Deborah A.  
Docket No.: 960296.97133

ATTACHMENT FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Background

The present invention provides a cost effective way of manufacturing custom "gene chips". Gene chips, also referred to as "DNA micro arrays", are used by biologists to identify genes for gene discovery, disease diagnosis, drug research, and toxological research. A common type of gene chip places different DNA probes in a regular pattern over a rectangular substrate area. The DNA probes hybridize or bind with genetic material in a test solution. The locations where the genetic material binds to the substrate identify the particular genetic material in the solution.

It is expensive to make gene chips, and normally, many identical chips must be manufactured so as to obtain the benefits of mass production.

### The Present Invention

The present invention creates a gene chip by mass producing single columns of DNA probes on fibers, and then assembling different fibers into a two-dimensional array. The invention contemplates fabrication of a large library of different fibers (with different DNA probes), and the selection of a subset of those fibers for a given array, combining the cost advantages of mass production with the flexibility of being able to produce a semi-custom array.

### Claim Elements

Representative elements of rejected claim 41 require:

a library of strips of non-reactive substrates having linear arrays of chemically reactive substances, and

a support frame for holding different combinations of a subset of the library of strips for mutual exposure to a test substance.

The invention is thus a "kit" that contemplates semi-custom arrays will be manufactured from a selection of strips from a much larger library.

### The Cited Art

The claims stand rejected over Gross and Zuk. Gross is a urine analysis system using paper strips having identical linear arrays of chemically reactive substances. Thus, it does not have the "different linear arrays of chemically reactive substances" required of claim 41. The Examiner notes that the test strips of Gross have linear arrays including different test materials (bilirubin, urobilinogen, etc.), but that is beside the point, as the linear arrays of these different materials are still identical linear arrays. The claim is quite clear that the linear arrays are composed of different chemically reactive substances clearly indicating that each linear array is not a single substance.

Further, Gross does not teach a library of strips greater in variety than the set of strips used on the frame such that a subset of strips may be selected from the library, the essence of the present kit claim. The purpose, intent, and specific teachings of Gross are all counter to this aspect of the invention.

It is also worth noting that the frame used by Gross is not intended for the mutual exposure of the strips to a material to be screened. That would require a mixing of the urine samples of different individuals together before applying them to the identical test strips, clearly

counter to the intent of Gross. While the Examiner is correct that the Gross frame might be used in a different way, there is clearly no teaching for this use and, in fact, Gross teaches away from this use further supporting the fact that Gross does not teach different linear arrays of chemically reactive substances.

Zuk does not fill in for the deficiencies in Gross. Zuk appears to describe a kit of liquid reagents without immobilized reactive materials, strips or frames. Thus, Zuk does not teach strips with different arrays of chemically reactive substances, nor the mutual exposure of the strips to a material to be screened, and Zuk does not teach a library of different strips and placing a subset of the library of strips in a frame.

The Examiner has responded that arguments against the references individually are inappropriate where the rejection is based on a combination of the references. This is not the case here. Applicant is saying that the combination of Gross and Zuk, assuming that combination is proper, would not meet the limitations of claim 41.

This case has been in process since August, 2000, and the issues refined to Applicant's contention that there is an omission in the rejection of one or more essential elements needed for a *prima facie* rejection. Accordingly, Applicant believes this application is appropriate for the new pre-appeal brief conference pilot program at which allowance of claims 41, and 43-52 is respectfully requested.

Respectfully submitted,

DAVID C. SCHWARTZ

By: 

Keith M. Baxter, Reg. No. 31,233  
Attorney for Applicant  
Quarles & Brady LLP  
411 E. Wisconsin Avenue  
Milwaukee WI 53202-4497  
(414) 277-5719